Thesis/
Reports
Brown, P.J.

REFINEMENT OF RECREATION OPPORTUNITY SPECTRUM SYSTEM BY FIELD STUDIES ON BUREAU OF LAND MANAGEMENT LANDS IN THE STEENS MOUNTAIN AREA OF OREGON PROGRESS REPORT

New Mexico - Monthly Climatological Data

'73, '74

Progress Report
for project entitled
Refinement of Recreation Opportunity Spectrum System by Field Studies on Bureau of Land Management Lands in the Steens Mountain Area of Oregon

Submitted as required by
Cooperative Agreement No. RM-80-148-CA
between
Rocky Mountain Forest and Range Experiment Station
U. S. Forest Service
and
Oregon State University

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by
Perry J. Brown, Principal Investigator
Oregon State University

Corvallis, Oregon
April 1981

Progress Report

Two objectives for the project were identified in the study plan submitted in October 1980:

1. To identify and quantify visitor preferences for specific recreation activites, settings, and experiences in the Steens Mountain Study area.
2. To refine parameters that are used to define the types of resources and landscapes that characterize different recreation opportunity classes used in recreation opportunity planning.

The plan for meeting these two objectives suggested a two phase approach. In phase one preferences for activities, settings and specific experiences are being identified. In phase two the specific parameters for measuring a limited number of setting characteristics (identified as important in phase one) will be identified.

The methods for phase one data collection and analysis are similar to those used in previous studies of users of BLM areas by Driver and Brown. They involve an initial on site questionnaire to obtain use data and names and addresses of users, a mail questionnaire to obtain preference information, and analyses of data collected on both questionnaires. These methods are described in the project study plan.

Based upon data collected on-site we have made some estimates of total use of the Steens Mountain area. We were limited in this process by not having good road counter data, but did arrive at some estimates anyway. A preliminary report of these estimates is attached as Exhibit I.

The on-site interviewing process yielded a list of 663 names of users for the follow-up mail survey. These persons have been sent the mail questionnaire attached as Exhibit II. To date, after three mailings, about 20 questionnaires were undeliverable and 500±5 completed questionnaires have been returned. This is slightly over 75% and returns are still coming in.

All returns are presently being key-punched and verified by the OSU Computer Center and will be placed on tape for analysis. Analysis will begin at the end of April.

Plans for initiating phase two activities are underway. We have selected the "remoteness" and "modifications by man" ROS criteria as those to study in depth to determine appropriate measurement parameters. By mid-May we should have data collection methodologies worked out and be ready to amend the October 1980 study plan. Data collection for phase two will occur during the summer of 1981.

EXHIBIT I

PRELIMINARY USE STATISTICS

FOR STEENS MOUNTAIN AREA

The following tables display recreation use estimates obtained as part of the user preference study conducted during the summer of 1980 in the Steens Mtn. Recreation area. The study area is shown in Figure 1. This area is administered by the Burns District of the Bureau of Land Management.

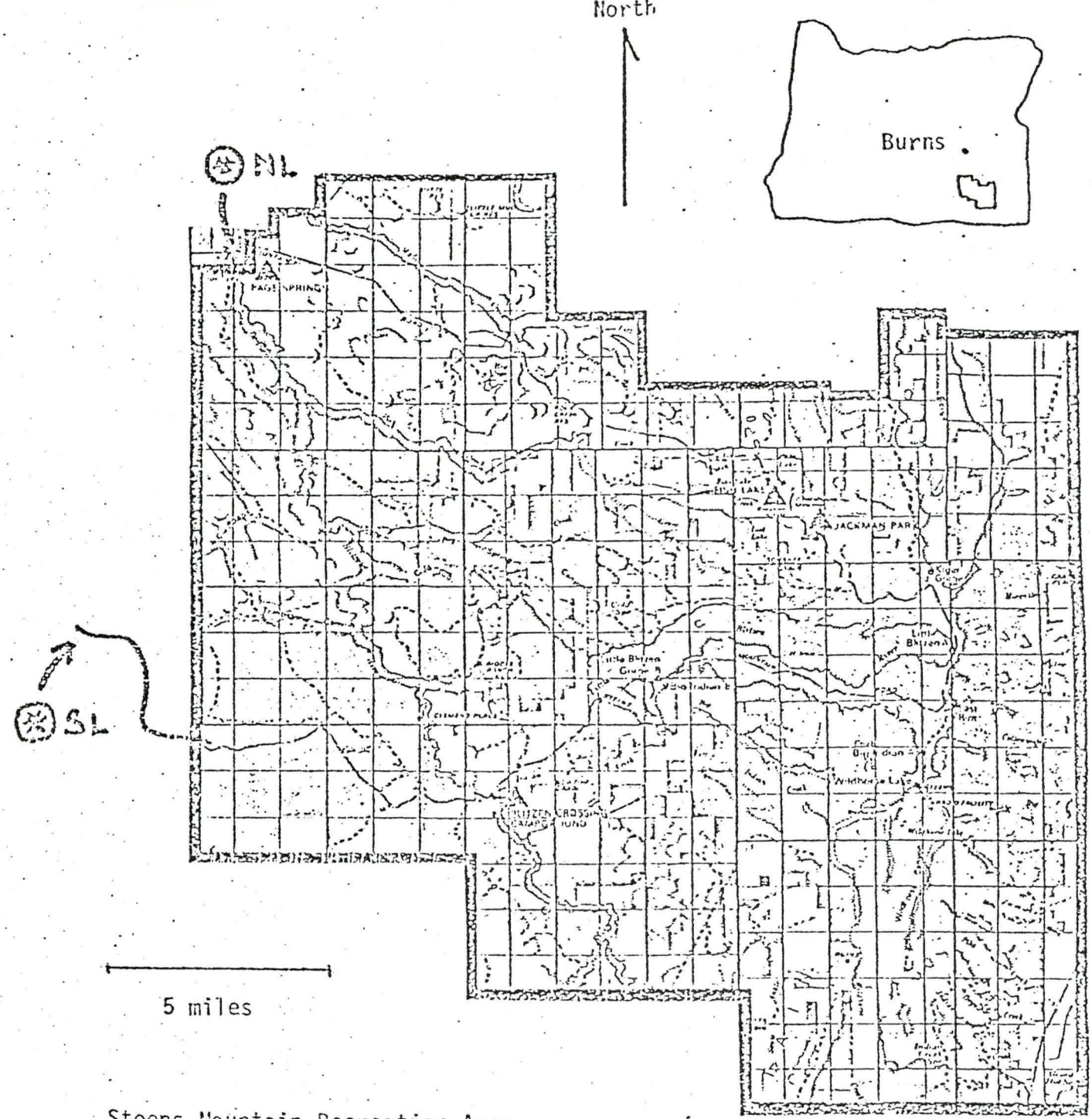
To gather the data from which use estimates were made, recreationists were stopped and interviewed as they left the Steens Mtn. area, either via the North Loop road or South Loop road. The interview sites are shown in Figure 1. The interview station on the North Loop road was between the turnoff to Page Springs Campground and the turnoff to Camper Corral. The station on the South Loop road was located approximately 3 miles off Oregon Hwy 205 and just outside the boundary of the Steens Mtn. Rec. area.

The interview forms used are shown in Figure 2. Data were collected on general information such as length of time spent in the area, group size, group type, and previous visits to the area. The person being interviewed was shown a map of the Steens Mtn. Recreation area and asked to indicate what activities they had participated in and where. Activities were recorded by zone. The zones are shown in Figure 3. They indicate developed camping areas, the various gorges, the looproad itself, rivers and creeks, and other areas.

The interview schedule used for data collection is shown in Figure 4.* Some interviewing was done on the Alvord Desert, though these data are not included in the use estimates. Interviewing was also done on October 11 and 12, during deer hunting season. These data have been kept separate and are also not included in these estimates.

The procedure for generating estimates was to derive weights for weekdays and weekends (including holidays) and apply these weights by interview station to the data collected. The weights were based on the ratio of the

* Because the North Loop road receives more use than the South Loop road, it was proportionately more heavily sampled.



Steens Mountain Recreation Area

Bureau of Land Management

Burns District

Figure 1. Steens Mountain Study Area

STEENS MOUNTAIN
USE QUESTIONNAIRE

1. Interviewer: _____

2. Station (circle) North Loop (01)
South Loop (02)
Alvord (03)

3. Time of week (circle) Weekday Weekend Holiday Weekends (04)

4. Date (Mo/Day): _____

5. Total number of hours spent in area: _____ (06-08)

6. Other areas visited on present trip (check)
___ Round Barn (09)
___ Malheur Wildlife Refuge (10)
___ Diamond Craters (11)
___ Alvord Desert (12)

7. What was the primary destination point of this trip?

1. Steens
2. Malheur
3. Other (Fill in) _____

8. What activities were participated in and where did they occur?

ACTIVITY	ZONES	ACTIVITY	ZONES
1. CAMPING NEAR AUTO	(14) (15) (16) (17)	10. TECHNICAL MT. CLIMBING	(50) (51) (52) (53)
2. CAMPING AWAY FROM AUTO	(18) (19) (20) (21)	11. HORSEBACK RIDING	(54) (55) (56) (57)
3. FISHING (LAKE)	(22) (23) (24) (25)	12. BIG GAME HUNTING	(58) (59) (60) (61)
4. PICNICKING	(26) (27) (28) (29)	13. SMALL GAME HUNTING	(62) (63) (64) (65)
5. AUTO DRIVING	(30) (31) (32) (33)	14. NATURE STUDY	(66) (67) (68) (69)
6. 4-WHEEL DRIVING	(34) (35) (36) (37)	15. PHOTOGRAPHY	(70) (71) (72) (73)
7. MOTORCYCLING	(38) (39) (40) (41)	16. VISITING HISTORICAL STRUCTURES	(74) (75) (76) (77) 78-80 ID#
8. FISHING (STREAM)	(42) (43) (44) (45)		
9. HIKING/WALKING	(46) (47) (48) (49)		

9. Specific historical structures visited (fill in) _____

10. Which of the above activities was the most important in coming to this area?
_____ (1-2)C2

11. Previous visits in the past year? (1979 ONLY)
#_____ (3-4)

12. If zero, have you ever been here before? (1) Yes (2) No (05)

13. # of people in group: #_____ (6-7)

14. # of people in vehicle: #_____ (8-9)

15. Group Type: (1) Family (2) Friends (3) Family & Friends (4) Alone (10)

Address of Permanent Residence:

Name _____

Address _____

City, State _____ Zip _____ (11-15)
78-80 ID#

Figure 2. Interview form.

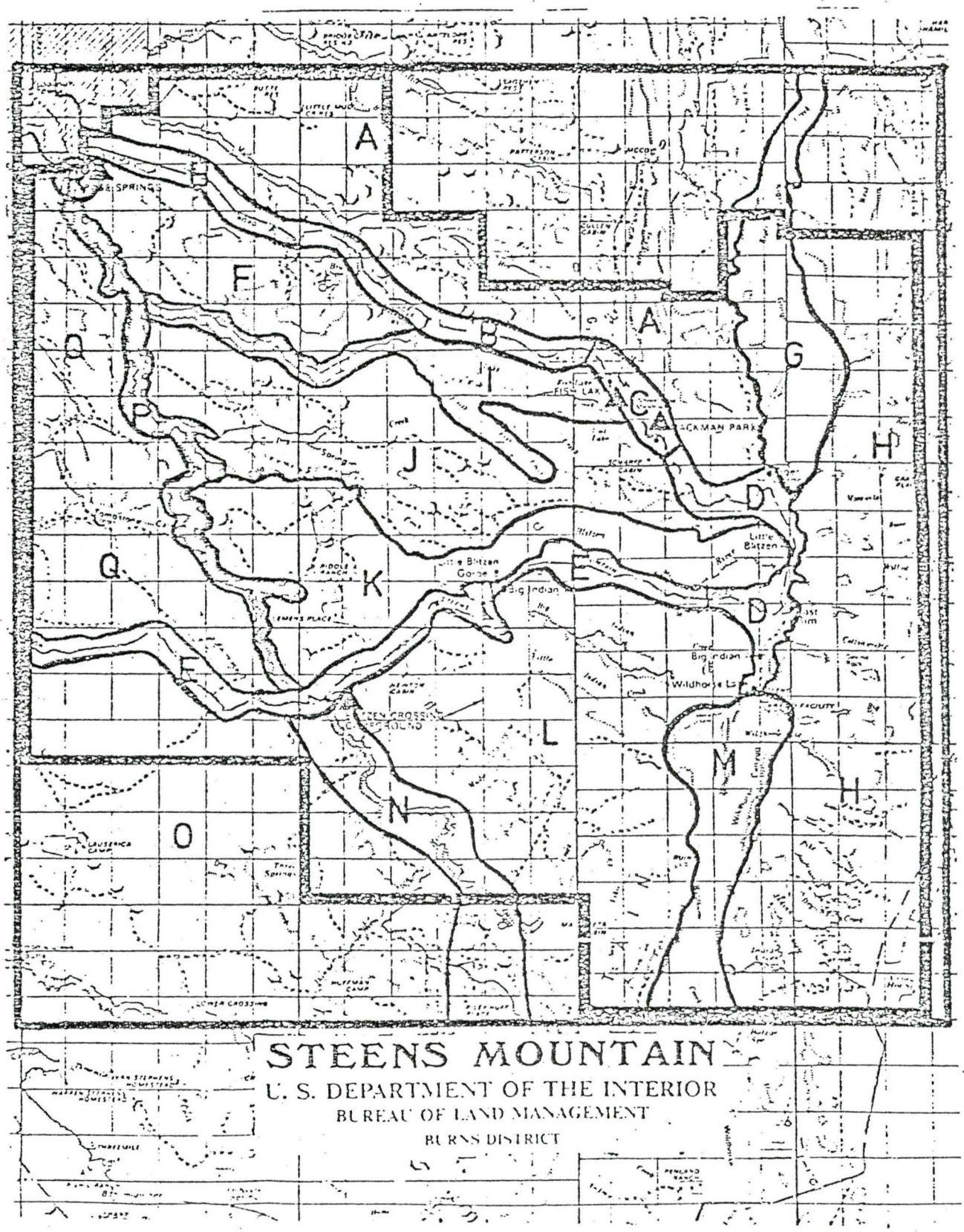


Figure 3. Steens Mountain Area zones.

Figure 4. Steens Mountain Interview Schedule *

Date	Stations Covered	Notes
July 4	A	
5	NL, A	Observations at Alvord Desert
6	NL	
7	NL, SL	
8	NL	
9	NL, SL	
10		
11		
12		
13		
14		
15		
16		
17		
18		
19	NL	
20	NL	
21	NL	
22	SL	
23	NL	
24	NL	
25	NL	
26	NL, SL	
27	NL	
28	NL	
29	NL	Observations at Alvord Desert
30	NL	
31	NL	
August 1	SL	
2	NL, SL	
3	NL, SL	
4	SL	
5	NL	
6		
7		
8		
9		
10		
11		
12		
13	NL, SL	
14	NL, SL	
15	NL, SL	
16	NL, A	Observations at Alvord Desert
17	NL, SL	
18	NL, SL	
19	NL, SL	
20	NL, SL	
21	NL, SL	
22	NL, SL	
23	NL, SL	

Fig. 4. continued

Date	Stations Covered	Notes
August 24	NL, SL	
25	NL	
26	NL	
27	NL	
28	NL	
29	NL, SL	
30	NL, SL	
31	NL	
September 1	NL, SL	
2	NL	
3	NL	
4	NL	
5	NL	
6	NL	
7	NL, SL	
8		
9	NL	
10	NL	
11	NL, SL	
12	NL	
13	NL	
14	NL, SL	
15		
October 11	NL, SL	Opening Hunting Season
12	NL, SL	Opening Hunting Season

* NL = North loop road
SL = south loop road
A = Alvord desert

amount of time spent interviewing, during the period of July 4, to September 14, 1980, and the total possible interview time during that period. Each day was divided into three sampling blocks--5 hours in the morning, 5 hours in the afternoon, and 2 1/2 hours in the evening. A total number of possible sampling periods for weekdays, and total possible periods for weekends (including holidays) was computed for the North Loop and South Loop between July 4 and September 14. The number of periods actually sampled during this same time were calculated and the following ratio developed:

	North Loop	South Loop
Weekday	120 possible 40 interviewed	120 possible 16 interviewed
Weekend	60 possible 39 interviewed	60 possible 14 interviewed

Assuming that traffic in and out of the area was the same during interviewing and while not interviewing, the following weights were used in making use estimates:

North Loop	Weekday	2.5
	Weekend (including holidays)	1.5
South Loop	Weekday	7.5
	Weekend (including holidays)	4.2

There are several precautions to keep in mind when interpreting these data:

1) The time period for which estimates are being made is July 4, 1980 to September 14, 1980.

2) The use reported is only use of visitors exeting by way of the two routes where interviewing took place.

3. Because no sampling was done late in the evenings and due to a lack of accurate counter data to use in weighting the data, the figures in these tables may best be used to describe patterns of use, activities participated in, and overall user characteristics, rather than being representative of total use of the Steens Mountain Recreation Area. It is likely these figures under-estimate use of ~~the~~ this area.

Table 1 Total number of parties and visitor day estimates for Steens Mtn. Rec. Area

	Users	Parties	Visitor day Estimate	Average VD's/party
Total	7,007	1,773	32,729	18.46

Table Estimates of parties using the Steens Mtn. Rec. Area by Interview Station

Station	n	Percent
North Loop*	1,023	57.7
South Loop	751	42.3
Total	1,773	

*Includes Page Springs Campground

Table Number	Number in Group	
	N	Percent
1	85	4.8
2	679	38.3
3	263	14.8
4	365	20.6
5	118	6.7
6	78	4.4
7	27	1.5
8	47	2.7
9	18	1.0
10	23	1.3
11	17	.9
12	9	.5
13	3	.1
14	3	.1
15	5	.3
16	5	.3
19	9	.5
31	20	1.1
Total	1,771*	100

* Lower than total estimate b/c of missing values.

Table Number of people per vehicle

Number	N	%
1	124	7.0
2	816	46.1
3	320	18.1
4	319	18.0
5	104	5.9
6	45	2.5
7	7	.4
8	21	1.2
10	7	.4
12	7	.4
19	3	.1
Total	1,771*	100%

*Lower than total estimate b/c of missing data

Table Group Composition

Group Composition	N	%
Family	970	54.9
Friends	425	24.0
Family & Friends	278	15.7
Alone	95	5.4
Total	1,768*	100

*Lower than total estimate because of missing values

Table Primary destination point of the trip.

Primary Destination	n	%
Steens Mtn.	1630	91.9
Malheur Wildlife Refuge	32	1.8
Alvord Desert	12	.6
Other	100	5.6
Total	1773	100

Table Other areas visited on present trip to Steens Mtn.

Area	n
Round Barn	231
Malheur Wildlife Refuge	541
Diamond Craters	184
Alvord Desert	137
Total	1,093*

* Lower because not all parties visited other areas.

Table Number of users of the Steens area who did not visit the area in the past year, but have visited the area before.

Did they visit before?	n	%
Yes	530	43.7
No	684	56.3
Total	1214	100

Table Number of previous visits in the past year

No. Previous Visits	N	%
0	1221	71.2
1	305	17.8
2	78	4.5
3	50	2.9
4	13	.7
5	13	.8
6	3	.1
7	2	.1
8	2	.1
10	9	.5
12	6	.3
15	4	.2
25	6	.3
30	4	.2
80	3	.1
Total	1715*	100

* Smaller than total estimate because of missing data.

Table Most important activity for coming to Steens Mountain

Activity	n	%
Camping near auto	364	20.5
Camping away from auto (back-packing)	38	2.1
Lake fishing	155	8.7
Picnicking	22	1.3
Sightseeing	647	36.5
Motorcycling	3	.2
Stream fishing	140	7.9
Hiking/walking	78	4.4
Horseback riding	15	.9
Big game hunting	124	7.0
Small game hunting	2	.1
Nature study	80	4.5
Photography	56	3.2
Visiting historical structures	2	.1
Swimming	14	.8
Other	33	1.9
Total	1773	100

...participated in by zones

	A		B		C		D		E		F		G		H		I	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Camping near auto	8	.7	16	1.3	679	57.5	29	3.2	166	14.1	13	1.1	--		8	.7	3	.2
Backpacking	9	6.5	--	--	14	9.7	18	13.1	--	--	5	3.6	29	20.5	3	1.8	4	2.9
Lake fishing	--	--	2	.3	491	95.8	--	--	--	--	--	--	--	--	--	--	--	--
Picnicking	--	--	24	9.8	97	39.7	93	37.8	48	19.4	--	--	--	--	--	--	--	--
Sightseeing	14	1.4	643	64.3	789	78.9	877	87.7	613	61.3	4	.4	--	--	--	--	2	.1
Four wheel driving	13	22.3	5	8.0	7	12.5	6	10.7	3	5.3	--	--	3	4.5	2	2.7	--	--
Motorcycling	14	25.5	7	12.7	35	62.7	32	58.2	18	31.8	--	--	--	--	--	--	5	9.1
Stream fishing	30	7.3	2	.4	18	4.4	4	1.0	52	12.6	4	1.0	21	5.0	--	--	27	6.5
Hiking/walking	52	4.6	22	2.0	338	30.1	644	57.4	101	9.1	18	1.6	53	4.7	11	.9	43	3.8
Technical Mountain climbing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horseback riding	3	8.0	3	8.0	12	38.5	4	12.8	3	8.0	--	--	--	--	--	--	--	--
Big game hunting	39	35.1	3	2.3	11	10.0	18	15.9	22	20.2	--	--	5	4.1	--	--	9	7.7
Small game hunting	2	27.3	--	--	3	45.5	4	72.7	--	--	--	--	--	--	--	--	--	--
Nature Study	10	4.3	36	16.1	113	50.3	120	53.3	46	20.4	2	.7	14	6.2	2	.7	16	7.0
Photography	44	3.6	65	5.4	579	48.1	904	75.1	331	27.5	7	.6	40	3.3	12	1.0	19	1.6
Visit historical structures	8	25.0	--	--	--	--	--		--	--	--	--	--	--	3	8.3	--	--
Swimming	--		3	3.5	36	49.5	--		4	5.9	--	--	3	3.5	--	--	--	--
Boating	--		--		3		--				--		--	--	--	--	--	--
Other	--		--		3*													

*bicycle riding

	J		K		L		M		N		O		P		Q		R		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Cases
Camping near auto	9	.7	4	.4	27	2.3	--	--	--	--	43	3.6	7	.6	7	.6	280	23.7	1180
Backpacking	23	16.2	24	17.2	14	10.1	35	25.5	--	--	--	--	--	--	--	--	2	1.1	139
Lake fishing	--	--	--	--	--	--	56	10.8	--	--	--	--	--	--	--	--	--	--	518
Picnicking	5	1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	39	15.9	245
Sightseeing	3	.2	2	.1	5	.4	--	--	--	--	--	--	--	--	--	--	9	.9	1000
Four wheel driving	--	--	--	--	17	30.5	--	--	--	--	18	31.2	--	--	22	38.7	--	--	56
Motorcycling	3	4.5	--	--	--	--	--	--	--	--	8	13.6	2	2.7	--	--	8	14.5	55
Stream fishing	10	2.3	46	11.0	47	11.3	2	.4	10	2.3	12	2.8	208	50.4	--	--	48	11.6	409
Hiking/walking	26	2.3	54	4.8	78	7.0	120	10.7	25	2.2	53	4.7	74	6.6	2	.1	64	5.7	1121
Technical mountain climbing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horseback riding	10	30.4	11	24.5	2	4.8	--	--	--	--	--	--	--	--	--	--	--	--	31
Big game hunting	13	11.8	3	2.7	21	18.9	--	--	10	9.1	55	50.2	7	6.1	3	2.3	--	--	110
Small game hunting	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Nature study	10	4.5	16	6.9	2	2.7	9	4.0	2	.7	15	6.7	17	7.6	2	.7	24	10.5	224
Photography	23	1.9	44	3.7	58	4.8	78	6.5	--	--	31	2.6	47	3.9	4	.3	81	6.7	1204
Visit historical structures	5	15.0	3	10.0	12	38.8	--	--	--	--	3	8.3	--	--	--	--	--	--	32
Swimming	--	--	--	--	--	--	3	3.5	--	--	--	--	8	11.2	--	--	21	28.6	72
Boating	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3

Percentages are based on the total number of parties who participated in that particular activity rather than the total number of parties. Parties could have participated in a particular activity in more than one zone, hence the percentages total more than 100%.

EXHIBIT II

HUMAN SUBJECTS APPROVAL FORM

MAIL QUESTIONNAIRE

OREGON STATE UNIVERSITY

Committee for Protection of Human Subjects

Summary of Review

TITLE: Techniques for Recreation Opportunity Planning (USFS)

PROGRAM DIRECTOR: Perry J. Brown

RECOMMENDATION:

__X__ Approval

_____ Provisional Approval

_____ Disapproval

_____ No Action

REMARKS:

Date: Jan. 14, 1981

Signature: Rod V. Frakes acting for
John V. Byrne, Vice President
Research and Graduate Studies
Phone: 754-3437

cc: Committee Chairman

mep

PART I

This set of questions asks about the details of your trip to Steens Mountain during which we interviewed you. You indicated that the activity most important to you in coming to Steens was _____. You also indicated that you participated in that activity in zone(s) _____ shown on the attached Steens Mountain map. We would like to learn more about your recreation experience in that area.

Think about one specific area where you engaged in _____. Indicate the location of this area on the attached map. Place an X on the map at the area you are thinking about.

In Part I of the questionnaire we are interested in learning about the experiences you had at the area you are thinking about. Be sure when answering the following questions that you keep that area and activity in mind.

1. In this question we are interested in the environment where you recreated. We have listed below a number of features of the environment and ask you to indicate what effect each did or would have had on your experience. Please write a response for each item listed.

	What Effect Did/Would This Have Had on Your Experience?								
	ADDED					DETRACTED			
Features of the Environment	Most Strongly	Strongly	Moderately	Slightly	Neutral	Slightly	Moderately	Strongly	Most Strongly
Mule deer	+4	+3	+2	+1	0	-1	-2	-3	-4
Steep, rugged hillsides	+4	+3	+2	+1	0	-1	-2	-3	-4
Rugged canyonland areas	+4	+3	+2	+1	0	-1	-2	-3	-4
Good stream fishing	+4	+3	+2	+1	0	-1	-2	-3	-4
High mountain lakes	+4	+3	+2	+1	0	-1	-2	-3	-4
Wide panoramas	+4	+3	+2	+1	0	-1	-2	-3	-4
Sparse vegetation	+4	+3	+2	+1	0	-1	-2	-3	-4
Scenic vistas	+4	+3	+2	+1	0	-1	-2	-3	-4
Wild horses	+4	+3	+2	+1	0	-1	-2	-3	-4
Coyotes in the distance	+4	+3	+2	+1	0	-1	-2	-3	-4
Only 1-2 other recreation groups encountered on a given day	+4	+3	+2	+1	0	-1	-2	-3	-4
3-6 other recreation groups encountered on a given day	+4	+3	+2	+1	0	-1	-2	-3	-4
6-15 other recreation groups encountered on a given day	+4	+3	+2	+1	0	-1	-2	-3	-4
More than 15 other recreation groups encountered per day	+4	+3	+2	+1	0	-1	-2	-3	-4
Other recreationists in four wheel drive vehicles	+4	+3	+2	+1	0	-1	-2	-3	-4
Developed campgrounds	+4	+3	+2	+1	0	-1	-2	-3	-4
Outhouse-type toilets	+4	+3	+2	+1	0	-1	-2	-3	-4
Picnic tables	+4	+3	+2	+1	0	-1	-2	-3	-4
Designated fire pits	+4	+3	+2	+1	0	-1	-2	-3	-4
No evidence of recreation management in the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Well maintained hiking trails	+4	+3	+2	+1	0	-1	-2	-3	-4
Maps of the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Rough roads on which only four wheel drive vehicles can travel	+4	+3	+2	+1	0	-1	-2	-3	-4
Infrequently used dirt roads	+4	+3	+2	+1	0	-1	-2	-3	-4
Dirt roads on which traffic is frequent	+4	+3	+2	+1	0	-1	-2	-3	-4
Motorized traffic nearby	+4	+3	+2	+1	0	-1	-2	-3	-4
Motorized traffic in distance	+4	+3	+2	+1	0	-1	-2	-3	-4
No motorized traffic apparent	+4	+3	+2	+1	0	-1	-2	-3	-4
Cattle grazing	+4	+3	+2	+1	0	-1	-2	-3	-4
Evidence that cattle had been in the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Small man-built reservoirs in the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Power lines in the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Fences	+4	+3	+2	+1	0	-1	-2	-3	-4
No evidence of man	+4	+3	+2	+1	0	-1	-2	-3	-4
Abandoned mines	+4	+3	+2	+1	0	-1	-2	-3	-4
Abandoned buildings	+4	+3	+2	+1	0	-1	-2	-3	-4

Department of Resource
Recreation Management

Oregon State University

Corvallis, Oregon 97331 (503) 754-2043

Dear Steens Mountain User:

We appreciate the help you gave us last summer with our recreation use survey of the Steens Mountain Recreation Lands. To learn more about recreational use of the Steens, we need your help again.

Would you please complete the enclosed questionnaire? It was designed to learn more about preferences of the users of the Steens. The information is being collected to help guide future management decisions.

A relatively small group of people has been selected for this questionnaire, so your response is quite important to us. Please complete the questionnaire as soon as convenient, fold it, and mail it back in the postage-paid envelope provided. Your answers will be kept confidential. Thank you in advance for your help.

Sincerely,

Perry J. Brown

Perry J. Brown
Professor and Head

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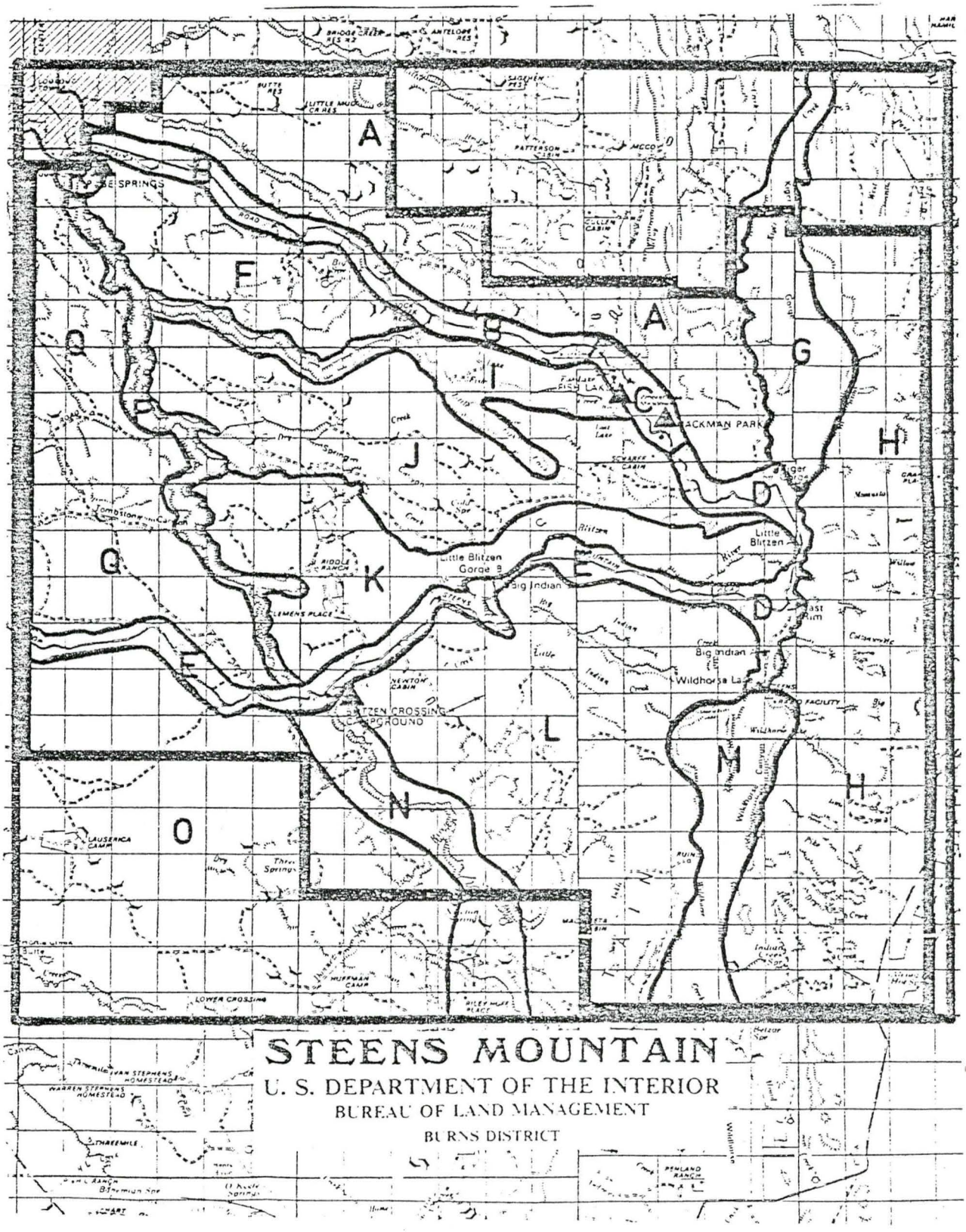
STEENS MOUNTAIN
U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BURNS DISTRICT
A
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Little Blitzen Gorge
Big Indian
Little Blitzen
Wildhorse La
Blitzen Crossing Campground
Lower Crossing
Three Springs
Jackman Park
Fish Lake
Riddle Ranch
Clemens Place
Newton Cabin
Lauserica Camp
Huffman Camp
Van Stephens Homestead
Warren Stephens Homestead
Three Mile
Penland Ranch

2. In this question we are interested in the factors which add to or detract from your recreation experience. Below we have listed a number of these factors and ask you to indicate what effect each did or would have had on your experience. Please circle a response for each item listed.

Factors	What Effect Did/Would This Have Had On Your Experience?								
	ADDED					DETRACTED			
	Most Strongly	Strongly	Moderately	Slightly	Neutral	Slightly	Moderately	Strongly	Most Strongly
Gaining a sense of self-confidence	+4	+3	+2	+1	0	-1	-2	-3	-4
Experiencing excitement	+4	+3	+2	+1	0	-1	-2	-3	-4
Learning more about things there	+4	+3	+2	+1	0	-1	-2	-3	-4
Being away from the family for awhile	+4	+3	+2	+1	0	-1	-2	-3	-4
Teaching your outdoor skills to others	+4	+3	+2	+1	0	-1	-2	-3	-4
Having others think highly of you for doing it	+4	+3	+2	+1	0	-1	-2	-3	-4
Being on your own	+4	+3	+2	+1	0	-1	-2	-3	-4
Taking risks	+4	+3	+2	+1	0	-1	-2	-3	-4
Being with friends	+4	+3	+2	+1	0	-1	-2	-3	-4
Being away from crowds of people	+4	+3	+2	+1	0	-1	-2	-3	-4
Experiencing new and different things	+4	+3	+2	+1	0	-1	-2	-3	-4
Enjoying the sounds and smells of nature	+4	+3	+2	+1	0	-1	-2	-3	-4
Getting exercise	+4	+3	+2	+1	0	-1	-2	-3	-4
Doing something with your family	+4	+3	+2	+1	0	-1	-2	-3	-4
Being near considerate people	+4	+3	+2	+1	0	-1	-2	-3	-4
Developing your skills and abilities	+4	+3	+2	+1	0	-1	-2	-3	-4
Being near others who could help you if you need them	+4	+3	+2	+1	0	-1	-2	-3	-4
Being with and observing other people using the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Feeling isolated	+4	+3	+2	+1	0	-1	-2	-3	-4
Thinking about your personal values	+4	+3	+2	+1	0	-1	-2	-3	-4
Learning about the topography of the land	+4	+3	+2	+1	0	-1	-2	-3	-4
Doing something creative, such as sketching, painting, photography, etc.	+4	+3	+2	+1	0	-1	-2	-3	-4
Learning what you are capable of	+4	+3	+2	+1	0	-1	-2	-3	-4
Being free to make your own choices	+4	+3	+2	+1	0	-1	-2	-3	-4
Helping direct the activities of others	+4	+3	+2	+1	0	-1	-2	-3	-4
Experiencing solitude	+4	+3	+2	+1	0	-1	-2	-3	-4
Relaxing physically	+4	+3	+2	+1	0	-1	-2	-3	-4
Developing personal spiritual values	+4	+3	+2	+1	0	-1	-2	-3	-4
Getting away from the usual demands of life	+4	+3	+2	+1	0	-1	-2	-3	-4
Meeting other people in the area	+4	+3	+2	+1	0	-1	-2	-3	-4
Being in control of things that happen	+4	+3	+2	+1	0	-1	-2	-3	-4
Avoiding the unexpected	+4	+3	+2	+1	0	-1	-2	-3	-4
Using your equipment	+4	+3	+2	+1	0	-1	-2	-3	-4
Being with others who enjoy the same things you do	+4	+3	+2	+1	0	-1	-2	-3	-4
Studying nature	+4	+3	+2	+1	0	-1	-2	-3	-4
Viewing the scenery	+4	+3	+2	+1	0	-1	-2	-3	-4
Bringing back pleasant memories	+4	+3	+2	+1	0	-1	-2	-3	-4
Having a change from your daily routine	+4	+3	+2	+1	0	-1	-2	-3	-4
Releasing clutched-up feelings	+4	+3	+2	+1	0	-1	-2	-3	-4
Being away from noise back home	+4	+3	+2	+1	0	-1	-2	-3	-4

3. A wide variety of recreation settings can be provided by resource managers. Below, in the columns, are four different settings which are described by seven different characteristics. For each characteristic (e.g. remoteness) select a setting which is most descriptive of where you recreated and a setting which is most descriptive of conditions you would prefer for your most important activity at the Steens. In the two right columns circle the numbers which represent this actual and this preferred setting. Your actual and preferred settings can be the same or they can be different.

CHARACTERISTICS	SETTING 1	SETTING 2	SETTING 3	SETTING 4	IN WHICH TYPE SETTING DID YOU RECREATE? (Circle)	WHICH TYPE SETTING DO YOU PREFER? (Circle)
Remoteness	Most man-made developments, including motorized vehicles, cannot be seen or heard.	Most man-made developments, including motorized vehicles, can seldom be seen or heard.	Few, but some man-made developments, including motorized vehicles, can be seen and heard.	Man-made developments, including motorized vehicles, are common.	1 2 3 4	1 2 3 4
Environment	Unmodified natural environment.	Predominately unmodified natural environment, except for minimal facilities like trails.	Predominately unmodified natural environment, except for minimal facilities like trails and rough roads.	Generally natural appearing environment, with developed (e.g. camping) recreation facilities.	1 2 3 4	1 2 3 4
Other Users	Very few other users or their evidence; very low concentration of use.	Some, but only a few, other users or their evidence; low concentration of use.	Same as Setting 2.	Other users or their evidence are quite noticeable; moderate concentration of use.	1 2-3 4	1 2-3 4
Regulations	No apparent on-site regulation of users.	Few, but some, on-site regulation of users by rules and managers.	Same as Setting 2.	Obvious on-site regulation of users by rules and managers.	1 2-3 4	1 2-3 4
Facilities	No recreation facilities are provided.	A few minimal facilities like trails are provided.	Same as Setting 2.	Recreation facilities like trails, campgrounds, etc., are provided.	1 2-3 4	1 2-3 4
Other Resource Uses	Non-recreational resource uses which alter the natural environment do not occur.	Some non-recreational resources uses which alter the natural environment occur (e.g. grazing).	Same as Setting 2.	Non-recreational resource uses which alter the natural environment (e.g. water developments, grazing, etc.) are quite evident.	1 2-3 4	1 2-3 4
Access	No motorized access.	Same as Setting 1.	Four-wheel drive, off road motorcycle, and possible truck access.	Automobile access.	1-2 3 4	1-2 3 4

FOCUS ON YOUR CHOSEN ACTIVITY AND LOCATION

4. As a final question in PART I we would like you to indicate which of the following descriptions best indicates the type of experience you had at the area of the Steens you are thinking about (check only one).

_____ An experience characterized by a high degree of solitude and isolation from the sights and sounds of human activity.

_____ An experience characterized by a moderate degree of solitude and isolation from the sights and sounds of human activity.

_____ An experience in which there was some opportunity for solitude but affiliation with other user groups occurred a good part of the time.

_____ An experience in which affiliation with other user groups was quite common and the opportunity for solitude was low.

PART 2

1. Listed below are a few management actions which could be taken in the Steens Mountain Recreation Lands but are not actually planned. We are interested in the effect these actions would have on a recreation experience similar to the one you had when we interviewed you. Please circle the response which best describes the effect you think the action would have.

	EFFECT ON EXPERIENCE						
	ADDED				DETRACTED		
Action	Highly Desirable	Moderately Desirable	Slightly Desirable	No Effect On My Experience	Slightly Undesirable	Moderately Undesirable	Highly Undesirable
Make available pamphlets describing the natural and geologic features of the area	+3	+2	+1	0	-1	-2	-3
Make more pull-off areas along the Loop Road with picnic tables and fire grills	+3	+2	+1	0	-1	-2	-3
Construct more short day use hiking trails	+3	+2	+1	0	-1	-2	-3
Pave Loop Road	+3	+2	+1	0	-1	-2	-3
Develop more trails for horse riding	+3	+2	+1	0	-1	-2	-3
Construct more campgrounds along Loop Road (the road which leads to the Rim area)	+3	+2	+1	0	-1	-2	-3
Provide more directional signs on Loop Road	+3	+2	+1	0	-1	-2	-3
Place more mileage signs on Loop Road	+3	+2	+1	0	-1	-2	-3
Limit vehicles to certain areas only	+3	+2	+1	0	-1	-2	-3
Place more trash cans along Loop Road	+3	+2	+1	0	-1	-2	-3
Require pets be kept on a leash in campgrounds	+3	+2	+1	0	-1	-2	-3
Limit length of stay at campgrounds to five days	+3	+2	+1	0	-1	-2	-3
Require a fee at all campgrounds	+3	+2	+1	0	-1	-2	-3
Improve campgrounds to have more facilities (such as running water, flush toilets, etc.)	+3	+2	+1	0	-1	-2	-3
Keep campgrounds as rustic as possible with few facilities	+3	+2	+1	0	-1	-2	-3
Keep Loop Road open through the winter	+3	+2	+1	0	-1	-2	-3
Make information available on where camping and picnic facilities are located in the Steens	+3	+2	+1	0	-1	-2	-3
Distribute information packets describing locations of good fishing	+3	+2	+1	0	-1	-2	-3
Distribute detailed Steens maps	+3	+2	+1	0	-1	-2	-3
Distribute maps showing campsites in the area according to how heavily they are used	+3	+2	+1	0	-1	-2	-3
Provide a pamphlet describing the natural history, flora, and geology of the area	+3	+2	+1	0	-1	-2	-3
Provide a pamphlet of locations of historic sites in the area	+3	+2	+1	0	-1	-2	-3
Develop rustic shelters for winter recreation	+3	+2	+1	0	-1	-2	-3
Develop a visitor center near Frenchglen	+3	+2	+1	0	-1	-2	-3
Construct more viewing areas along Loop Road	+3	+2	+1	0	-1	-2	-3
Keep Loop Road open to Fish Lake in the winter	+3	+2	+1	0	-1	-2	-3
Permanently close Loop Road from Jackman Park to near Blitzen Crossing	+3	+2	+1	0	-1	-2	-3
Provide a pamphlet which describes the pioneer history of the area	+3	+2	+1	0	-1	-2	-3
Make available a short pamphlet describing the history of Indian occupation in the Steens	+3	+2	+1	0	-1	-2	-3
Adopt regulations which restrict some lakes and streams to fly fishing only	+3	+2	+1	0	-1	-2	-3
Place special creel limits which reduce the number of fish to be taken in the Steens	+3	+2	+1	0	-1	-2	-3
Place signs along Loop Road which point out locations of historic interest	+3	+2	+1	0	-1	-2	-3
Develop long distance backpacking trails	+3	+2	+1	0	-1	-2	-3
Have more rangers for law enforcement	+3	+2	+1	0	-1	-2	-3

PART 3

Thinking back to your visit to Steens Mountain on which you were first contacted by us, please answer the following questions about that trip.

1. What type of vehicle(s) did you drive to Steens Mountain?

___ car, full size

___ car, compact, subcompact, or small truck

___ standard-sized pickup truck (without camper)

___ motor home, car with camper, or pickup with camper

___ other; specify: _____

2. How many miles did you travel, one-way to Steens Mountain? _____ miles.

3. During your stay at Steens Mountain (see previous map) how many miles, if any, did you or your party drive after you arrived? _____ miles.

4. While at Steens Mountain, what vehicle(s), if any, other than those mentioned in Question # 1 did you or your party drive?

___ 4-wheel drive vehicle

___ motorcycle

___ drove the same vehicle as mentioned in Question # 1

___ other; please specify: _____

5. For each of the following categories, please indicate your party's approximate expenditures on items used while traveling to Steens Mountain and then back home again. (Expenditures on items used at Steens Mountain should be reported in Question 8.)

a. Food and refreshments _____

b. Motel, lodging, campground and trailer fees _____

c. Other expenses incurred while traveling (not counting vehicle expenses) _____

6. How much did it cost you and your party for vehicle expenses (gasoline, etc.) to travel to and from Steens Mountain?

_____

7. For each of the following categories, please indicate your approximate expenditures on items used while at Steens Mountain.

a. Food and refreshments _____

b. Hotels, camping, and/or trailer fees _____

c. Other expenses incurred at Steens Mountain, such as purchases at Frenchglen for fishing tackle or postcards _____

8. Recall the expenses you listed above. In the following questions you are asked whether you believe you got your money's worth.

a. How much did you value this trip? Was it worth more money than you actually spent?

____ Yes. If so, go on to b. _____ No.

b. If Yes, about how much was the entire trip worth? Assume that this trip had been more expensive due perhaps to increased travel costs or lodging, etc., what is the maximum amount you would have paid in addition to your current trip costs to visit Steens Mountain? $ _____.

9. Suppose you could not visit Steens Mountain. What would have been your next best alternative activity, where would you have gone, and how far would you have traveled?

_____ (Activity) _____ (Location) _____ (Distance-Miles)

10. Given your activities on Steens Mountain, which of the following descriptions best indicates your preference for access conditions which might be provided? (check only one)

___ No motorized access

___ Rough roads accessible by 4-wheelers and off-road motor vehicles

___ Roads accessible by trucks and cars but not trailers

___ Graveled roads passable by most vehicles and trailers

___ Hard surfaced roads passable by any vehicle

11. Given your activities on Steens Mountain, which of the following descriptions best indicates your preference for recreation facilities? (check only one)

___ Primitive with no facilities

___ A few rustic facilities provided

___ Moderate facility development with some surfaced roads

___ Considerable facility development with surfaced roads and trails

___ Considerable facility development with many conveniences including showers and electrical hook ups

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PART 4

Please answer these few remaining questions. Your privacy will be maintained.

1. Please enter the zip code of your home residence ___ ___ ___ ___ ___

2. Your sex? ___Female ___Male

3. Your age at your last birthday? _____ years

4. Population of community where you now live?

_____ 100,000 or more

_____ 25,000 - 100,000

_____ 5,000 - 25,000

_____ below 5,000

_____ farm (no community)

5. What is the highest year of formal schooling you have completed? (circle the year)

Elementary School	1	2	3	4	5	6	7	8
High School/Vocational School	9	10	11	12				
College or Technical School	13	14	15	16				
Graduate School	17	18	19	20	21	22		

6. To the best of your knowledge, what was your household income last year (before taxes)?

___ Under $3,000
___ $3,000 - $4,999
___ $5,000 - $7,999
___ $8,000 - $11,999
___ $12,000 - $14,999
___ $15,000 - $17,999
___ $18,000 - $20,999
___ $21,000 - $24,999
___ $25,000 - $29,999
___ $30,000 - $34,999
___ $35,000 - $39,999
___ $40,000 - $49,999
___ $50,000 - $74,999
___ $75,000 - $100,000
___ Over $100,000 (Please specify to nearest $100,000)
$_____